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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/031,925	01/23/2002	William R. McDonnell	8238	2819

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[REDACTED] EXAMINER

SWIATEK, ROBERT P

[REDACTED] ART UNIT

[REDACTED] PAPER NUMBER

3643

DATE MAILED: 01/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.	10/031,925	
Examiner	MCDONNELL, WILLIAM R.	
Robert P. Swiatek	Art Unit 3643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 23 January 2002.

2a) This action is FINAL.      2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) See Continuation Sheet is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) See Continuation Sheet is/are allowed.

6) Claim(s) See Continuation Sheet is/are rejected.

7) Claim(s) 53,54,56-59,124,127,130,133,141,145,147,168,223 and 225 is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 23 January 2002 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:  
1. Certified copies of the priority documents have been received.  
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) Notice of References Cited (PTO-892)  
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 .

4) Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.  
5) Notice of Informal Patent Application (PTO-152)  
6) Other: \_\_\_\_\_

Continuation of Disposition of Claims: Claims pending in the application are 1-130,132,133,137,138,140-153,157,159,168,175-185,187,196-198 and 209-250.

Continuation of Disposition of Claims: Claims allowed are 1-4,6,7,34-39,43-50,115-120,128,150-152,157,184,185,209-214,216,217,220,221,224 and 226-230.

Continuation of Disposition of Claims: Claims rejected are 5,8-33,40-42,51,52,55,60-114,121-123,125,126,129,132,137,138,140,142-144,146,148,149,153,159,175-183,187,196-198,215,218,219,222 and 231-250.

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Note that claim 175 has not received an action on the merits inasmuch as it depends from a canceled claim.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 60-63, 90, 93, 94, 101, 102, 107, 108, 137, 138, 143, 144, 148, 149, 176-183, 187, 215, 218, 222 are rejected under 35 U.S.C. 102(b) as being anticipated by Reuter et al. (4,753,400).

As to claims 61, 143, 187, the junction between the wing of the aircraft 12 of Reuter et al. and the fuselage is considered to constitute a hook capable of interacting with tow line 24 or arresting means 34. With respect to claims 108, 180-183, lines comprising the net 36 of Reuter et al. (see Figure 11) are considered to be aligned in parallel orientation. Regarding claims 176-179, Figure 10 of Reuter et al. depicts a recovery net 50 supported vertically by a boom 52.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 64-68, 95, 96, 105, 142, 146 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reuter et al. Use of a hook, a guide, and pulleys with the aircraft 12 and winch 58 of Reuter et al. would have been obvious to one skilled in the art wishing to increase engaging

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contact between the aircraft and the arresting means 34 as well as permit increased accuracy in positioning the arresting means 34 relative to an incoming aircraft. As to claim 105, use of the Reuter et al. system with a ground vehicle rather than a ship also would have been obvious to one skilled in the art wishing to allow use of the retrieval mechanism over land rather than water. With regard to claim 146, use of a high visibility strip of material with the Reuter et al. retrieval apparatus would have been obvious to one skilled in the art wishing to make it easier to see from shipboard.

Claims 103, 140 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reuter et al. in view of Belleville (1,731,091). It would have been obvious to one skilled in the art to replace the parasail lifting means 14 of Reuter et al. with the lighter-than-air balloons of Belleville, in order to increase the “hover time” of the arresting means 34 of Reuter et al.

Claims 107-114 are rejected under 35 U.S.C. 102(b) as being anticipated by Schultz (2,465,936). The Schultz arresting device could be employed with airborne unmanned aircraft; with respect to claim 110, the features of the aircraft have not been given weight inasmuch as claim 108 is drawn only to the subcombination recovery system, exclusive of the aircraft. As to claim 111, the intersections between the vertical and horizontal plies of Schultz are deemed to constitute “stop means.”

Claim 121 is rejected under 35 U.S.C. 102(b) as being anticipated by Milligan (2,669,403). Kite A of Milligan is considered to constitute a lifting apparatus; the individual on the ground holding the kite string/tow line 13 is considered to function as a base structure.

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Claims 52, 129 are rejected under 35 U.S.C. 102(b) as being anticipated by King (3,684,219).

Launching strut 44 of King along with kite 10 carry the aircraft to an elevated altitude. The person holding the kite string functions as a base structure.

Claims 55, 132 are rejected under 35 U.S.C. 103(a) as being unpatentable over King. Use of a winch, rather than a person, to draw the kite of King back to Earth would have been obvious to one skilled in the art to ease the task of recovering the kite.

Claims 122, 123, 125, 126, 196-198 are rejected under 35 U.S.C. 102(b) as being anticipated by Reuter et al. With respect to claims 125, 126, arrestment means 34 of Reuter et al. is considered to be part of tow line 24.

Claims 176, 177 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Taylor (5,054,717: Ref. cited on PTO-1449).

Claims 129, 219 are rejected under 35 U.S.C. 102(b) as being anticipated by Baird (4,842,222). As to claim 219, the launching means 20-23 of Baird is considered to be held in the air by tow line 12.

Claims 231-238, 245, 246, 249 are rejected under 35 U.S.C. 102(b) as being anticipated by Tucker (1,748,663). Prior to hook 50 of Tucker engaging the cable loop 47 (see page 3, line 53, of Tucker), the loop would slide across at least a portion of the width of the aircraft's wing. With respect to claim 236, see dog 54 of Tucker. As to claims 245, 246, 249, counterweight 61 of Tucker would act to remove slack from the cable.

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Claims 239-244, 247 are rejected under 35 U.S.C. 102(b) as being anticipated by Tucker. With regard to claims 245-247, the counterweight 61 of Tucker could be employed to remove slack from the cable 40.

Claim 250 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tucker. Use of stops or enlargements with the cable loop 47 of Tucker would have been obvious to one skilled in the art wishing to minimize erratic movement or vibration of the aircraft after it had been snagged through action of the hook and cable.

Claims 5, 8-33, 40-42, 51, 60-106, 143, 144, 153, 159, 175, 218, 231-250 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The scope of claims 5, 16, 40, 61, 72, 143, 232, 239 is inconsistent and the claims are thus unclear. In claim 5, line 2, for example, the arrestment means is stated as being a hook “attached to said aircraft”--thus the combination aircraft and launch and recovery system is recited--while parent claim 1 is drawn to an “aerial launch and recovery system *for* unmanned aircraft [emphasis added].” In the latter instance, a subcombination only seemingly is intended. In claim 232, line 1 recites a subcombination *apparatus* while line 6 recites that a portion of the apparatus is “means attached to the flying object”--hence, the combination apparatus and flying object is claimed. Remaining claims 16, 40, 61, 72, 143, 239 share this inconsistency. The claims must be amended as needed to consistently recite one of the combination or subcombination. In claim 60, line 7, “said lifting apparatus” lacks a prior antecedent basis; in claim 96, line 3, “said parasail” lacks a prior antecedent; in claim 153, line 1, “said hook” lacks a prior

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antecedent; in claim 159, line 2, “the propeller” lacks a prior antecedent basis; claim 175 depends from a canceled claim and thus is unclear; in claim 218, line 2, the phrase “arrestment line or lines” is alternative in nature and lacks a prior antecedent basis; in claims 231-235, 237-239, 241, 242, 244, the expression “fixture(s)”--used throughout--fails to properly limit the scope of the invention and is unclear.

Claims 53, 54, 56-59, 124, 127, 130, 133, 141, 145, 147, 168, 223, 225, 248 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 69-89, 91, 92, 97-100, 104, 106 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 5, 8-33, 40-42, 51, 153, 159 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

The drawings are objected to because each of Figures 14, 25 depicts multiple embodiments, each of which must be numbered separately (the specification and brief description of the drawings also must be amended accordingly to reflect any new figure numbers). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

If applicant desires priority under 35 U.S.C. 119(e) based upon a previously filed copending application, specific reference to the earlier filed application must be made in the instant application.

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This should appear as the first sentence of the specification following the title, preferably as a separate paragraph. The status of nonprovisional parent application(s) (whether patented or abandoned) should also be included. If a parent application has become a patent, the expression "now Patent No.

\_\_\_\_\_ " should follow the filing date of the parent application. If a parent application has become abandoned, the expression "now abandoned" should follow the filing date of the parent application.

If the application is a utility or plant application filed on or after November 29, 2000, any claim for priority must be made during the pendency of the application and within the later of four months from the actual filing date of the application or sixteen months from the filing date of the prior application. See 37 CFR 1.78(a)(2) and (a)(5). This time period is not extendable and a failure to submit the reference required by 35 U.S.C. 119(e) and/or 120, where applicable, within this time period is considered a waiver of any benefit of such prior application(s) under 35 U.S.C. 119(e), 120, 121 and 365(c). A priority claim filed after the required time period may be accepted if it is accompanied by a grantable petition to accept an unintentionally delayed claim for priority under 35 U.S.C. 119(e), 120, 121 and 365(c). The petition must be accompanied by (1) a surcharge under 37 CFR 1.17(t), and (2) a statement that the entire delay between the date the claim was due under 37 CFR 1.78(a)(2) or (a)(5) and the date the claim was filed was unintentional. The Commissioner may require additional information where there is a question whether the delay was unintentional. The petition should be directed to the Office of Petitions, Box DAC, Assistant Commissioner for Patents, Washington, DC 20231.

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This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b).

An abstract on a separate sheet is required.

The patents to Schwab (2,365,778) and Liebert (2,365,827) have been cited to provide additional examples of aircraft, both heavier- and lighter-than-air.

RPS: ©703/308-2700  
15 January 2003--cdox

*Robert P. Swiatek*  
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**PRIMARY EXAMINER**  
**ART UNIT 333 3643**